# Beomho Kim

Korea Advanced Institute of Science and Technology 291 Daehak-ro Yuseong-gu, Daejeon 34141 South Korea

> Office: Room 4420, Bldg. E6-1 Email: bhkim@kaist.ac.kr

Website: mathsci.kaist.ac.kr/bhkim

### EDUCATION

Korea Advanced Institute of Science and Technology (KAIST)

Daejeon, Korea

Ph.D. in Mathematical Sciences

Mar. 2024 - Current

Advisor: Prof. Bo-Hae Im

Korea Advanced Institute of Science and Technology (KAIST)

Daejeon, Korea

M.S. in Mathematical Sciences

Feb. 2024

Advisor: Prof. Bo-Hae Im

- Thesis: A numerical method to find an optimal independent system for certain congruence subgroups

Ulsan, Korea

Ulsan National Institute of Science and Technology (UNIST)

B.S. in Mathematical Sciences, Minor in Computer Science and Engineering Graduated Summa Cum Laude

Feb. 2022

Advisor: Prof. Hae-Sang Sun

- Thesis: Introduction to class field theory

Daejeon Dongsin Science High School

Daejeon, Korea Feb. 2018

### RESEARCH EXPERIENCE

### Korea Advanced Institute of Science and Technology (KAIST)

Daejeon, Korea

Master and Ph.D. student at Mathematical Sciences, Bo-Hae Im Lab

Aug. 2022 - Current

- Modular forms seminar
- Optimal independent generating system of congruence subgroups
- Mean values of derivatives of modular L-series

### Ulsan National Institute of Science and Technology (UNIST)

Ulsan, Korea

Research Intern at Mathematical Sciences, Hae-Sang Sun Lab

Mar. 2021 - Aug. 2021

- Class field theory seminar

### Research Interest

- Algebraic Number Theory
  - Modular forms / Automorphic forms
  - Hecke congruence subgroups
  - Modular equations and modular relations
- Analytic Number Theory
  - Moments of twisted *L*-functions
  - Various Ramanujan continued fractions

## TEACHING EXPERIENCE

### • KAIST

Calculus I, TA (Spring 2023) Introduction to Number Theory, TA (Spring 2023) Calculus II, TA (Fall 2022, Fall 2023) Linear Algebra, TA (Fall 2022, Fall 2023) Introduction to Linear Algebra, TA (Spring 2022)

### • UNIST

Calculus I, TA (Spring 2019, Spring 2020, Spring 2021) Calculus II, TA (Fall 2019, Fall 2020, Fall 2021)

### SERVICE

• Graduate Student Representative in Department of Mathematical Sciences, KAIST	Feb. 2024–Current
- Co-organizing 2024 Workshop for Young Mathematicians in Korea ( <u>WYMK 2024</u> )	$\mathrm{Jan.}2024-\mathrm{Current}$
- Co-organizing 2023 Workshop for Young Mathematicians in Korea ( <u>WYMK 2023</u> )	${\rm Jan.2023-Aug.2023}$
- Co-organizing 2022 Workshop for Young Mathematicians in Korea ( <u>WYMK 2022</u> )	Sept. 2022 - Dec. 2022
• Co-organizing KAIST Math Graduate student Seminar (KMGS)	Feb. 2024 – Current

### AWARDS AND HONORS

Best TA Award at KAIST	Aug. 2022
National Excellence Scholarship (Natural Sciences and Engineering)	$\mathrm{Mar.}2020-\mathrm{Feb.}2022$
Silver Prize at UNIST Math Competition	Nov. 2018

# SKILLS AND TECHNIQUES

Programming: Python, C++, Java, HTML/CSS, I♣TEX, MATLAB

Language: Korean (native), English (intermediate), Chinese (beginner)

Last Updated: February 18, 2024